

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 4496 - L2 Version 4  
Chandra X-Ray Center

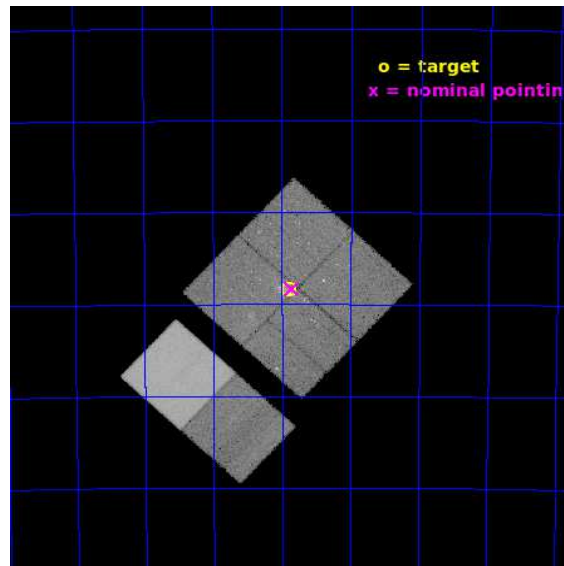
L2 Processing Date : Oct 9 2020

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# 1 Front

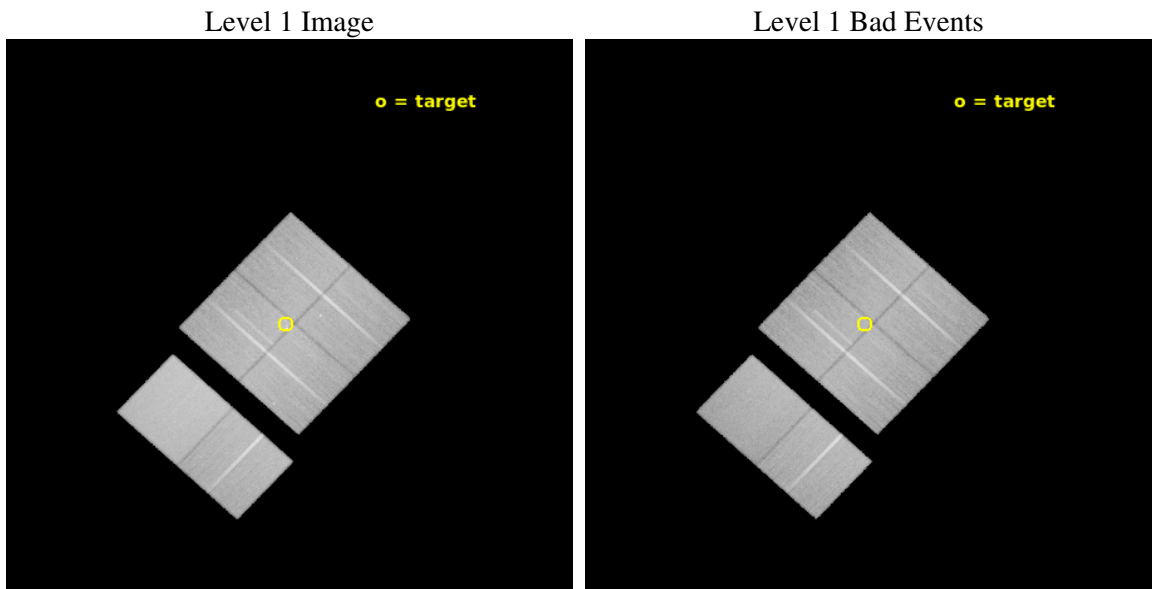
seq_num	200265	Sequence number
obs_id	4496	Observation id
title	X-ray Flows from the Giant HII Region NGC 3576	Proposal title
observer	Leisa Townsley	Principal investigator
object	NGC 3576	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	167.974167	Observer's specified target RA [deg]
dec_targ	-61.306944	Observer's specified target Dec [deg]
ra_nom	167.96346137679	Nominal RA [deg]
dec_nom	-61.305072962359	Nominal Dec [deg]
roll_nom	222.899182125	Nominal Roll [deg]
revision	4	Processing version of data
ontime	41023.999847174	Sum of GTIs [s]
livetime	40504.529259422	Livetime [s]
ontime0	41017.446880043	Sum of GTIs [s]
ontime1	41023.969780892	Sum of GTIs [s]
ontime2	41023.999847174	Sum of GTIs [s]
ontime3	41023.999847174	Sum of GTIs [s]
ontime6	41023.999847174	Sum of GTIs [s]
ontime7	41023.999847174	Sum of GTIs [s]
l2events	375239	Number of level 2 events



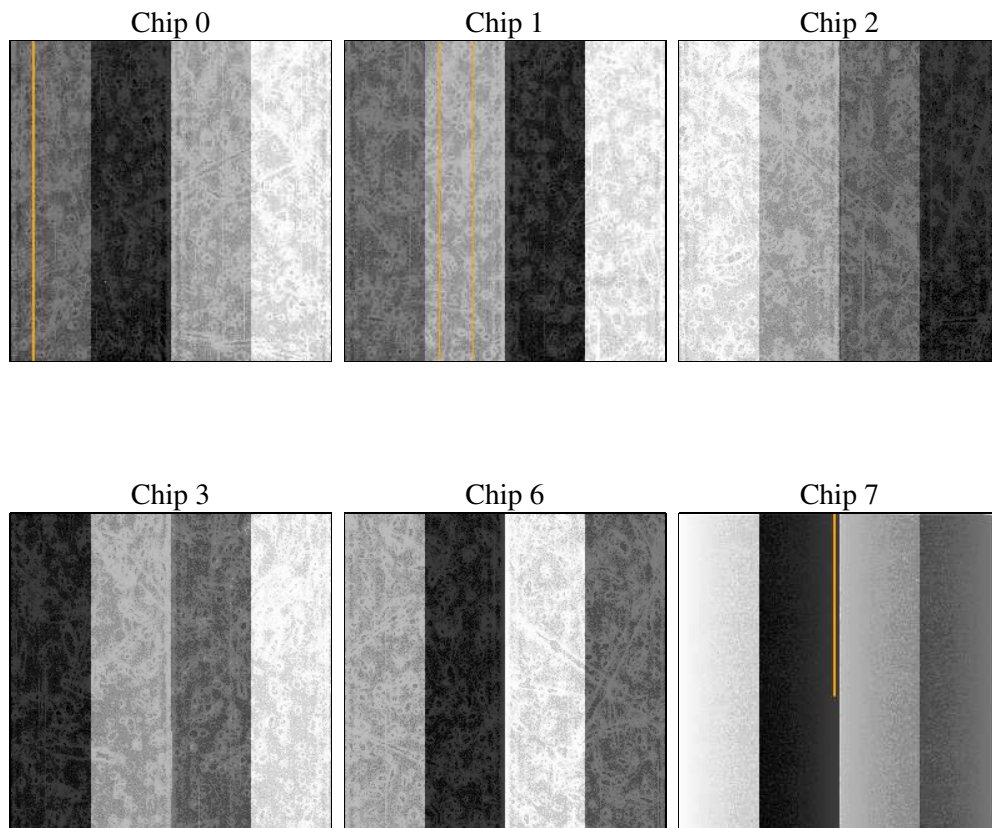
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	41000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	41023.999847174	Sum of GTIs [s]
caldbver	4.9.2	&#160	ontime0	41017.446880043	Sum of GTIs [s]
date	2020-10-09T12:49:18	Date and time of file creation	ontime1	41023.969780892	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	41023.999847174	Sum of GTIs [s]
			ontime3	41023.999847174	Sum of GTIs [s]
			ontime6	41023.999847174	Sum of GTIs [s]
			ontime7	41023.999847174	Sum of GTIs [s]
			l1events	2025228	Number of level 1 events

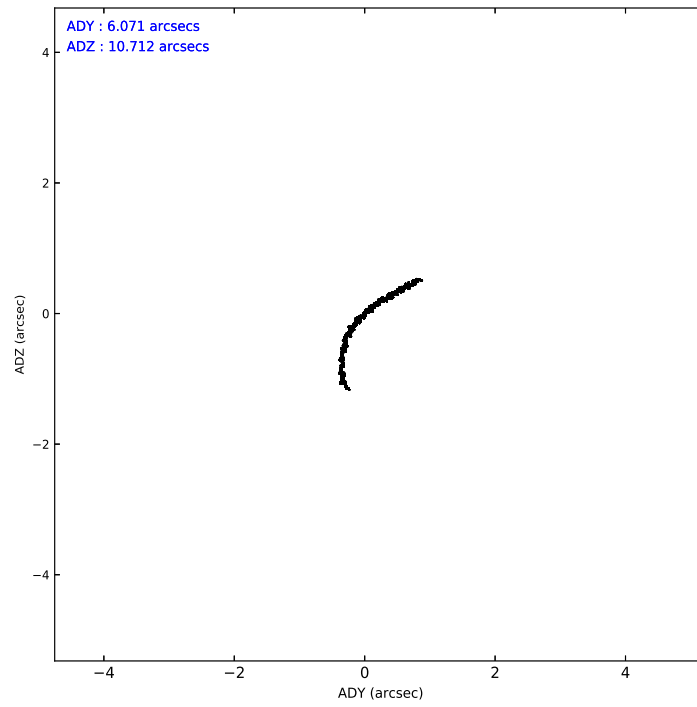
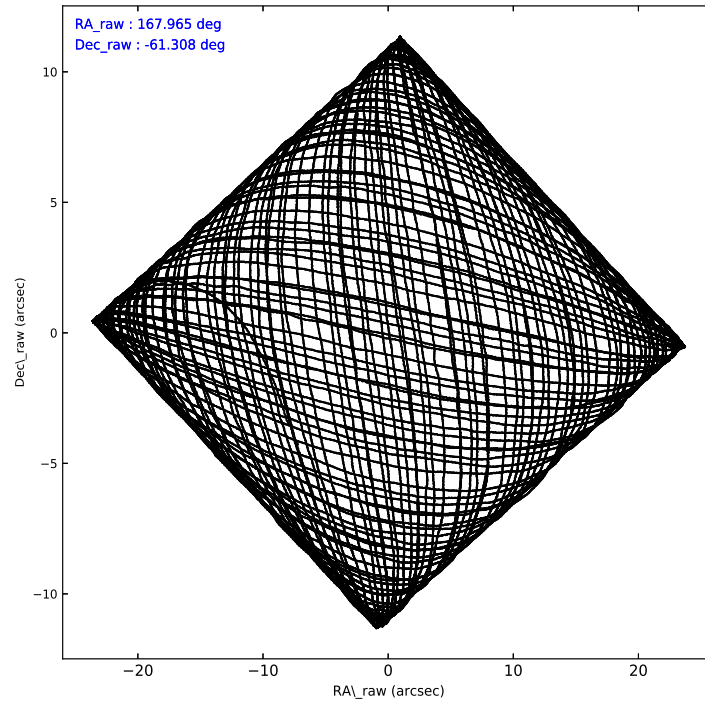
### 2.1.4 Events

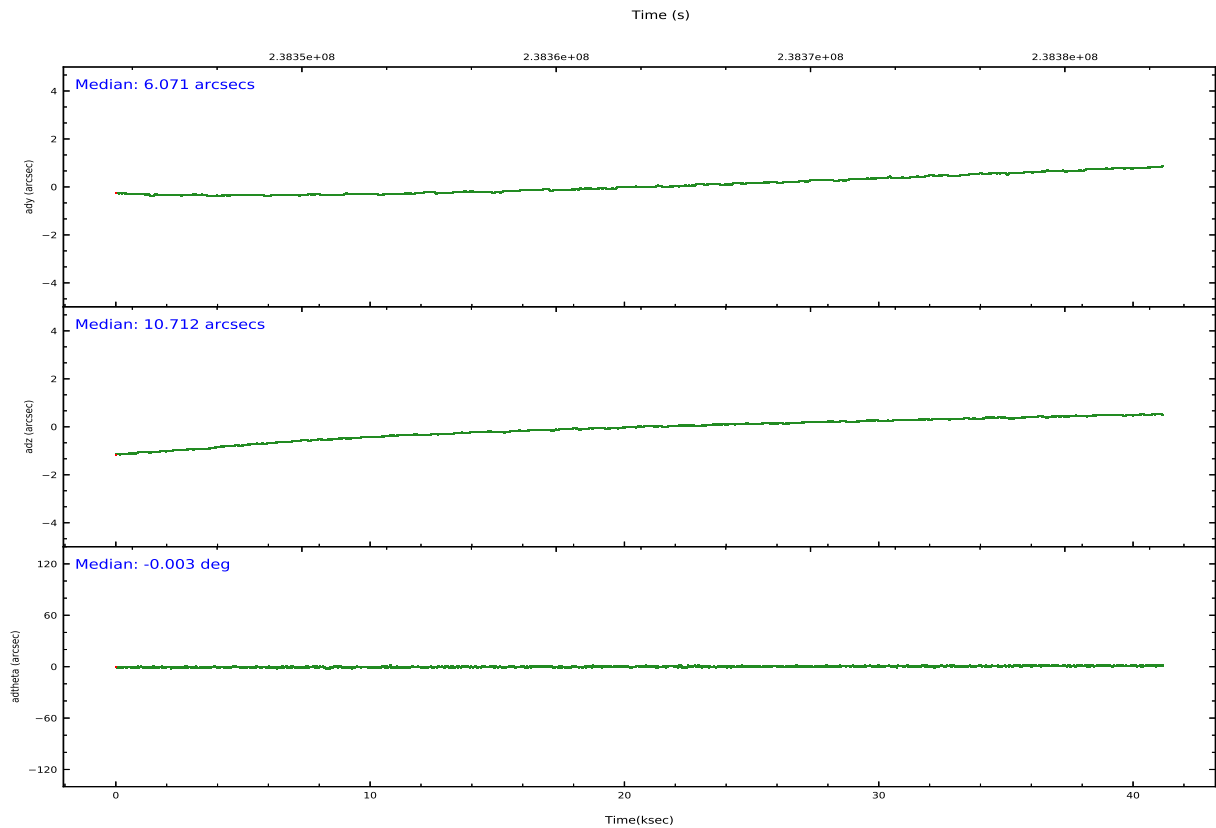
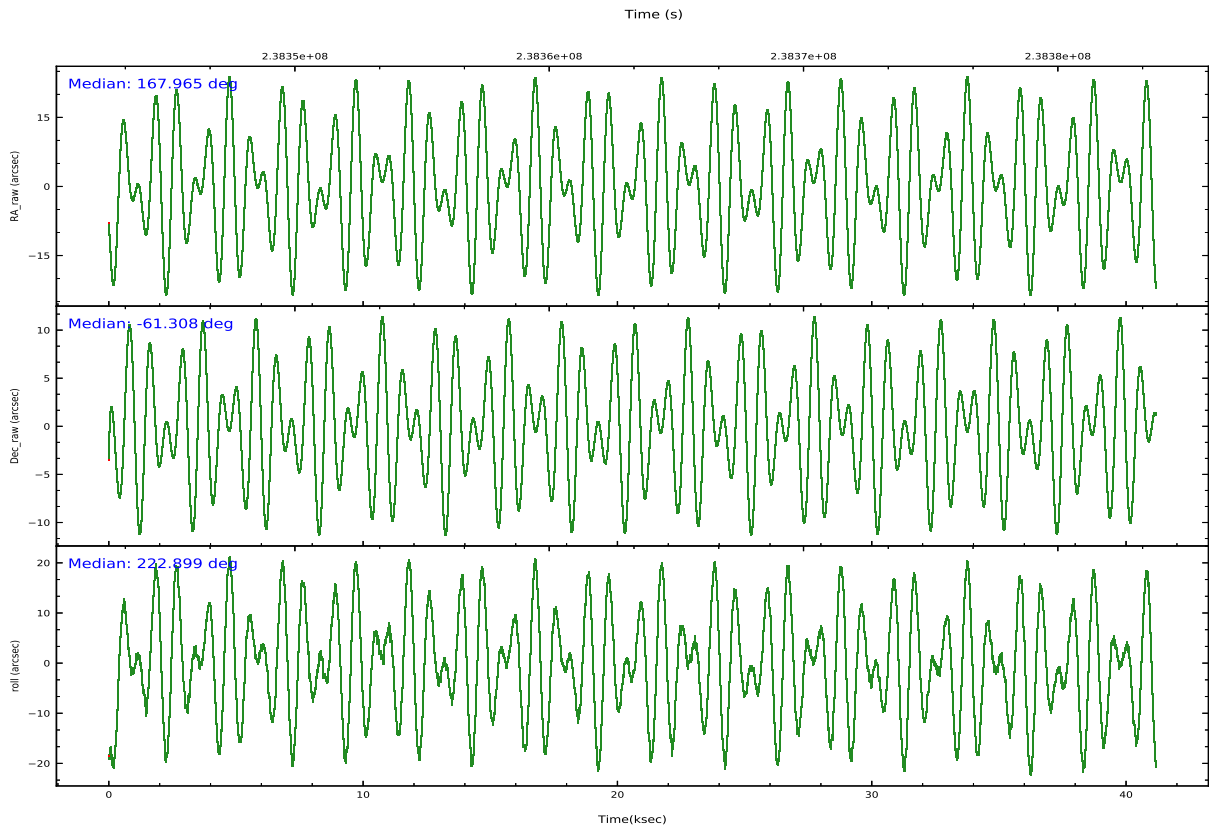
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	296644	303282	326461	320234	334418	444189	grade 0 events	20011	20470	20697	22843	17015	17055
rejected events	253653	257125	283958	274292	293348	254362		6%	6%	6%	7%	5%	3%
rejected %	85%	84%	86%	85%	87%	57%	grade 1 events	198	145	235	246	158	442
								0%	0%	0%	0%	0%	0%
							grade 2 events	8661	9641	8288	8392	8711	37574
								2%	3%	2%	2%	2%	8%
							grade 3 events	3865	3996	3604	3874	3754	16453
								1%	1%	1%	1%	1%	3%
							grade 4 events	3617	3944	3601	3955	3699	16322
								1%	1%	1%	1%	1%	3%
							grade 5 events	12918	13502	12304	14320	15171	41322
								4%	4%	3%	4%	4%	9%
							grade 6 events	6840	8111	6314	6880	7895	102431
								2%	2%	1%	2%	2%	23%
							grade 7 events	240534	243473	271418	259724	278015	212590
								81%	80%	83%	81%	83%	47%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	167.981626	167.96346137679	Subarray requested	NONE	NONE
[deg] Pointing Dec	-61.282329	-61.305072962359	Alternating exposures requested	N	N
[deg] Pointing Roll	222.706546	222.899182125	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	238342866.184000	238341872.51585			
Observation start date	2005-07-21T14:20:02	2005-07-21T14:04:32			
[s] Observation end time (MET)	238383866.184000	238384692.40531			
Observation end date	2005-07-22T01:43:22	2005-07-22T01:58:12			
Read mode	TIMED	TIMED			

## 2.3 Aspect





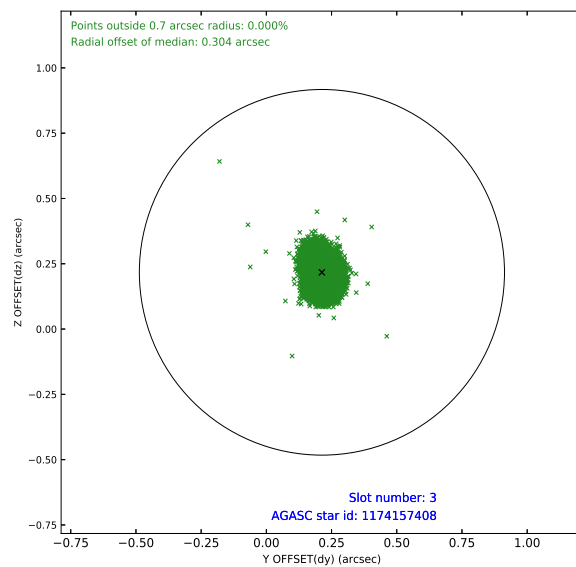
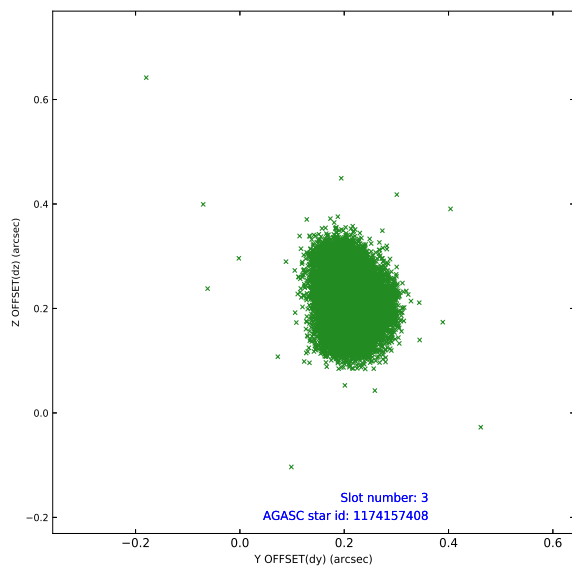
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-I-1	7.25	10042	1.000	-0.006	-0.068	0.027	0.071	0.000000	0.000000	933.56	-834
1	FID		ACIS-I-4	7.18	10043	1.000	0.129	0.072	0.025	0.046	0.000000	0.000000	2153.72	1065
2	FID		ACIS-I-5	7.22	10044	1.000	-0.222	0.065	0.013	0.026	0.000000	0.000000	-1814.66	1063
3	GUIDE	used	1174157408	7.99	20087	1.000	0.213	0.217	0.059	0.096	167.115550	-61.626529	1936.28	-86
4	GUIDE	used	1174277736	7.98	20088	1.000	0.309	0.162	0.073	0.114	167.205882	-61.559450	1659.98	-162
5	GUIDE	used	1174281840	8.16	20087	1.000	-0.147	-0.260	0.073	0.114	167.912903	-60.443364	-1958.55	-2302
6	GUIDE	used	1174282480	7.02	20090	1.000	-0.412	-0.031	0.047	0.075	168.099465	-60.378692	-2360.54	-2248
7	GUIDE	used	1174286632	8.71	20083	1.000	0.039	-0.086	0.067	0.106	169.069142	-61.673672	-399.08	2306

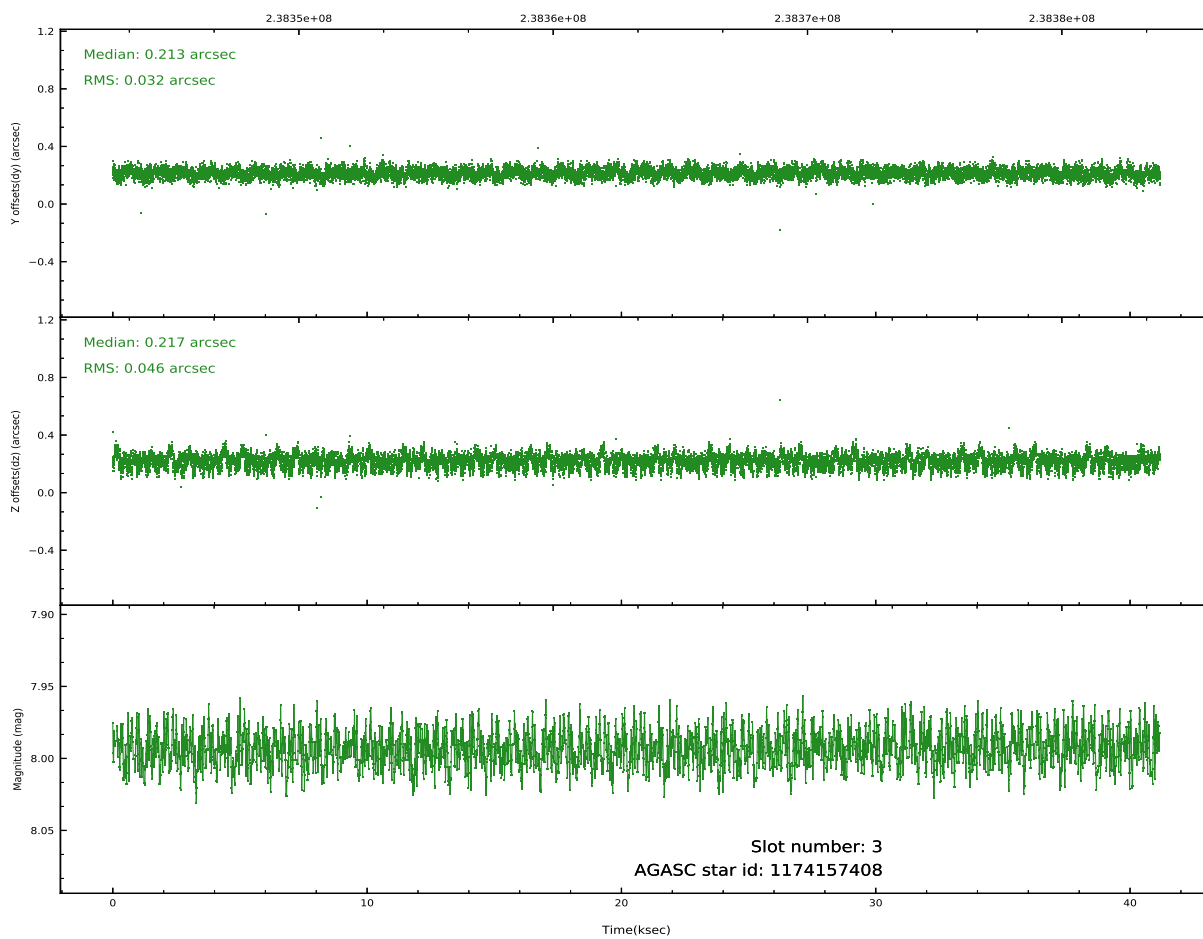
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## 2.4 Star Slots

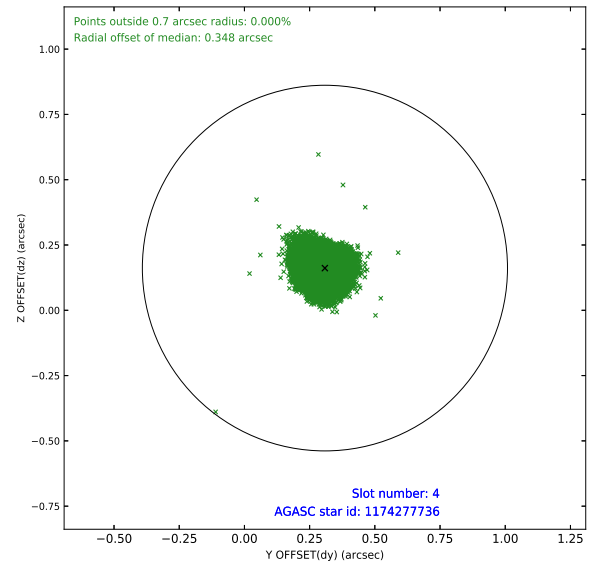
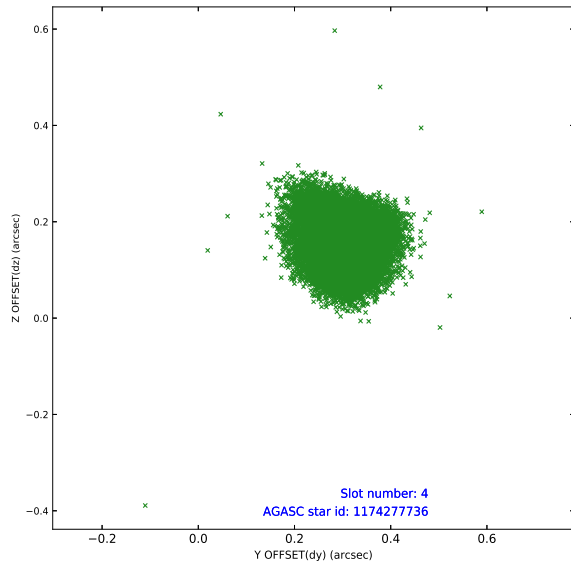
### 2.4.1 Slot 3



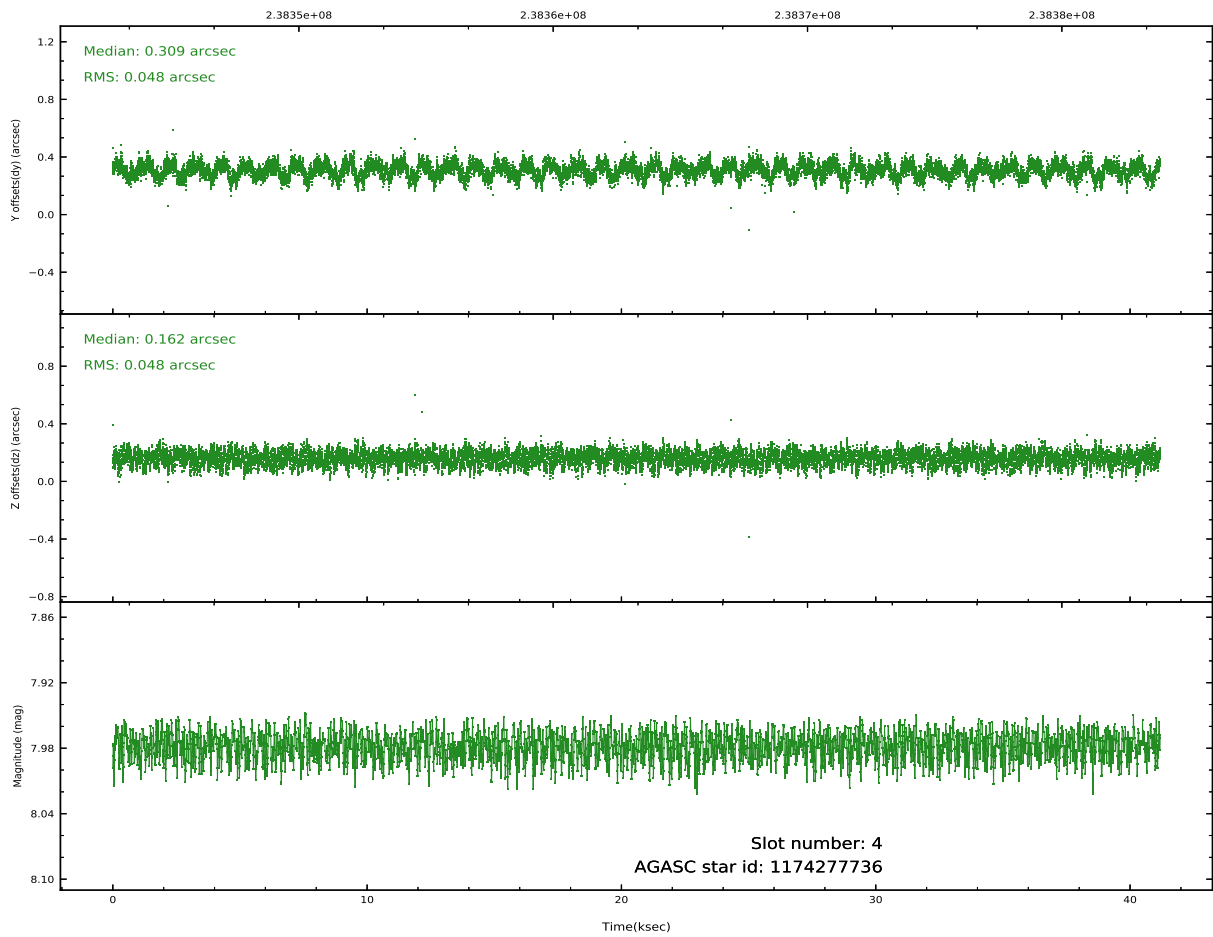
Time (s)



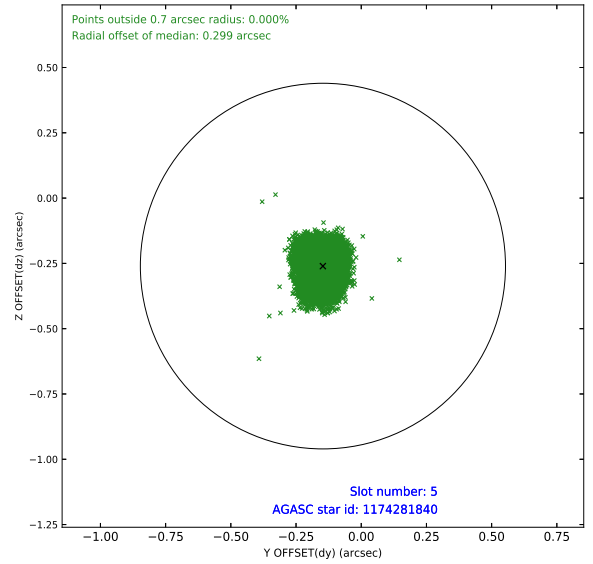
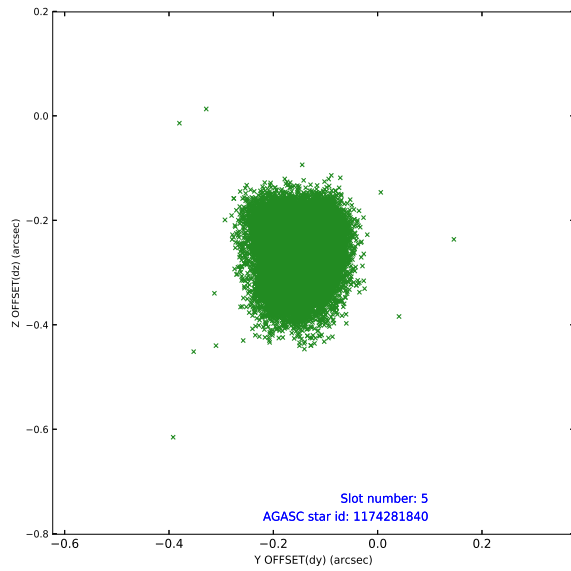
## 2.4.2 Slot 4



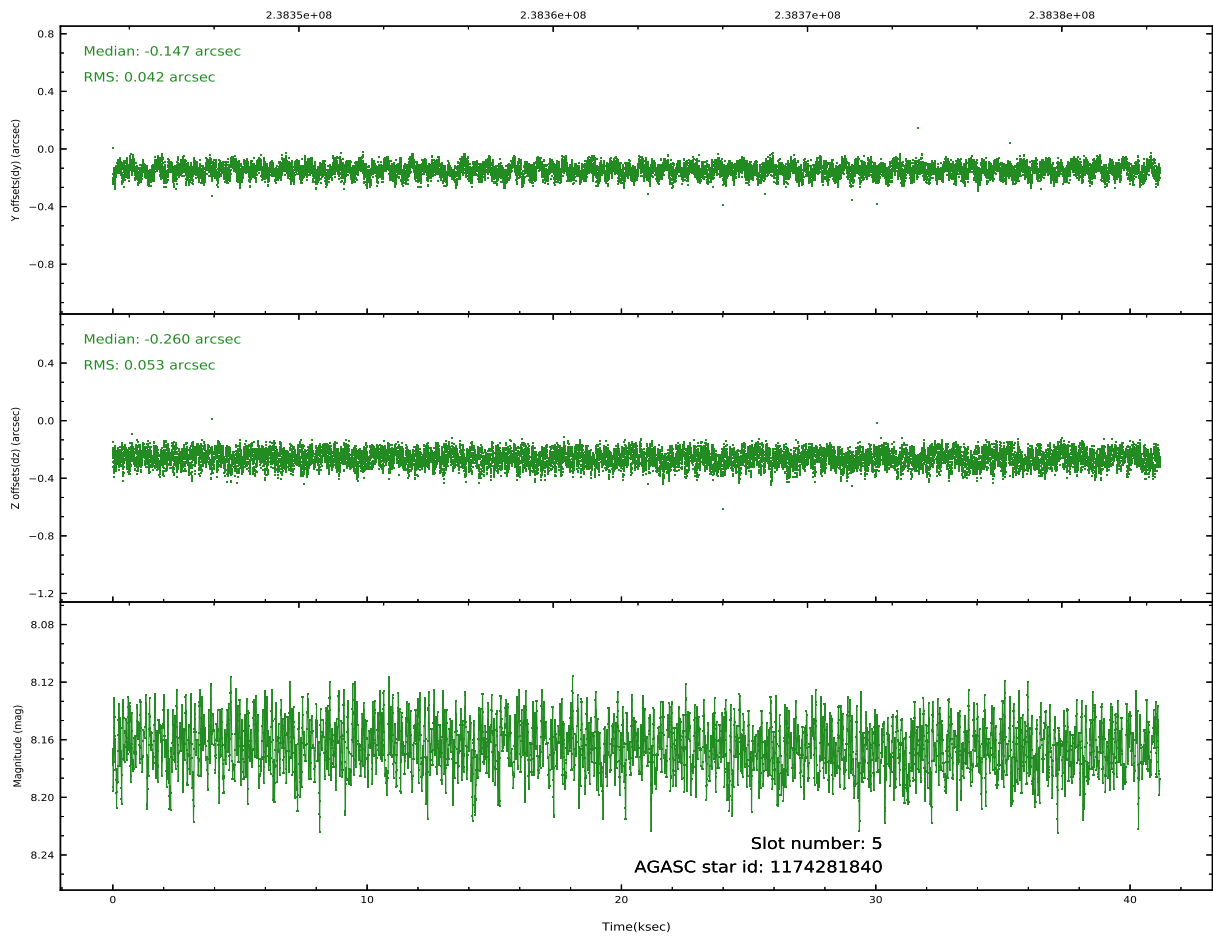
Time (s)



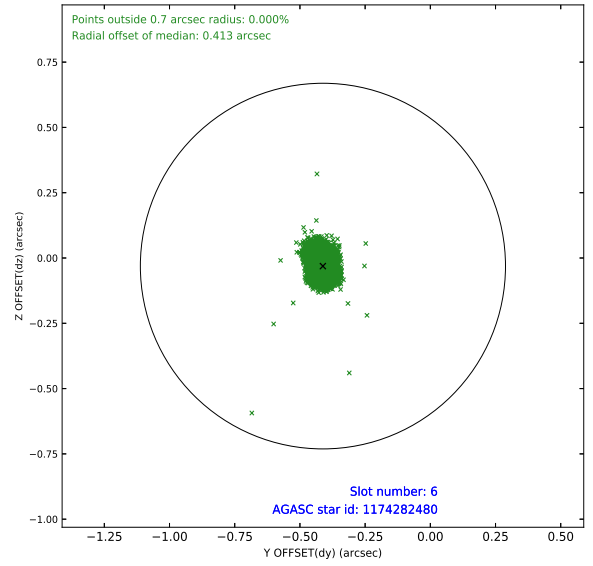
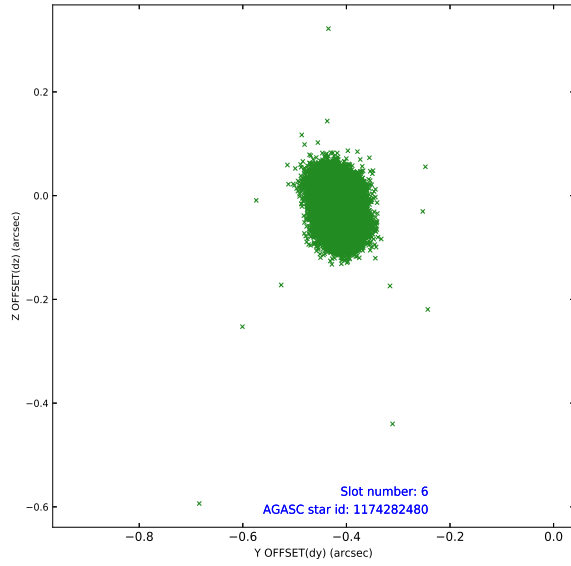
### 2.4.3 Slot 5



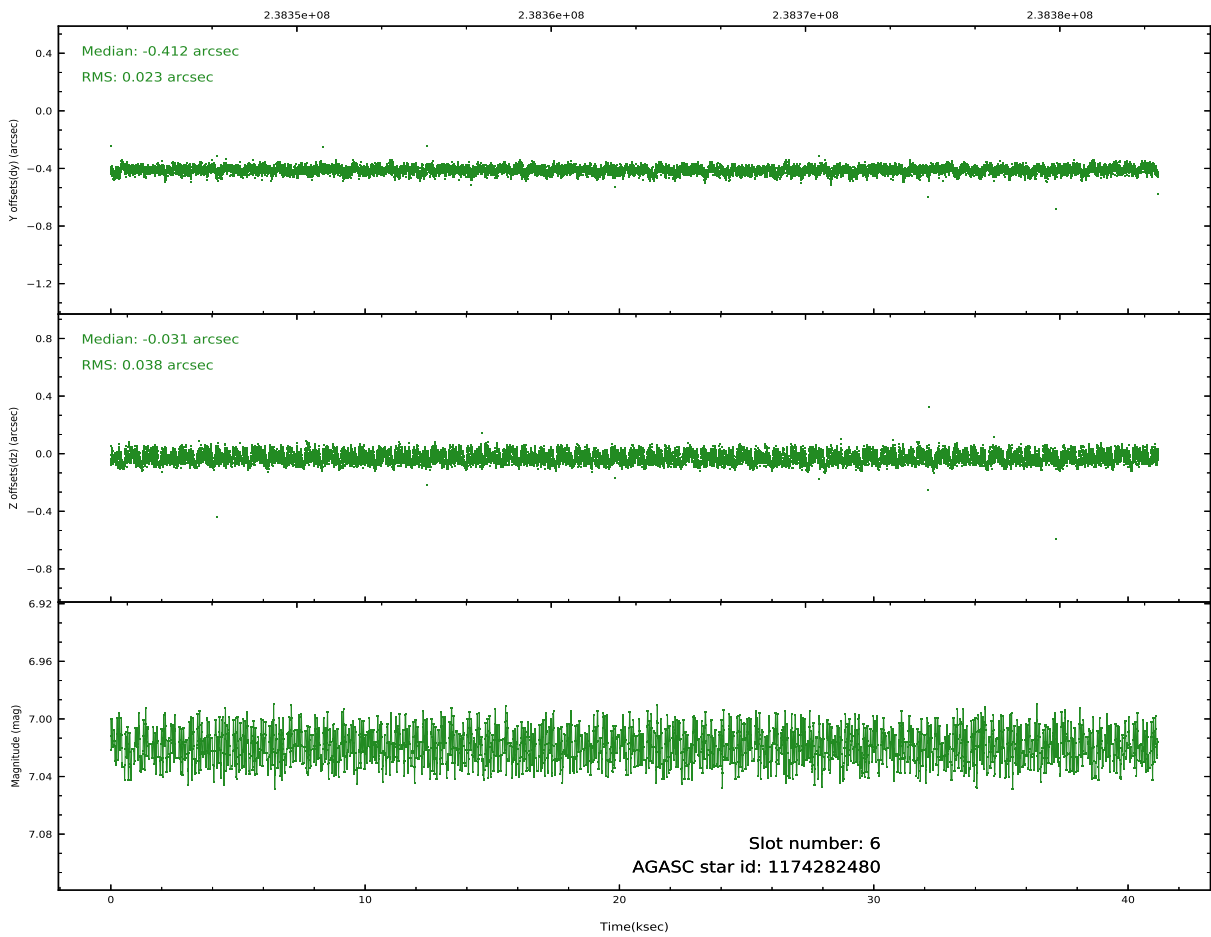
Time (s)



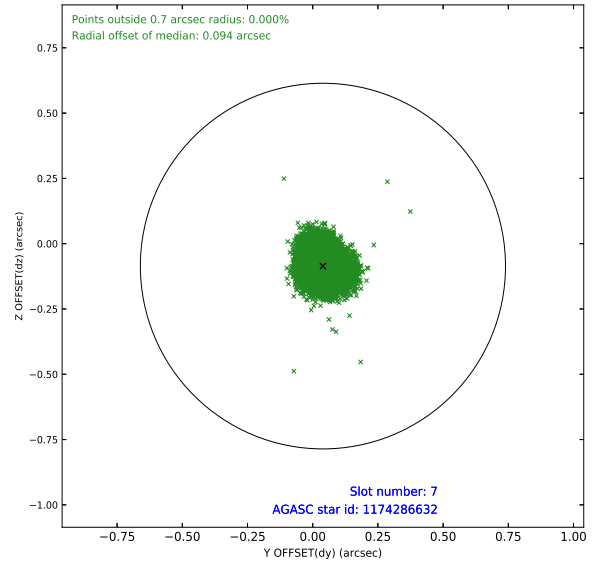
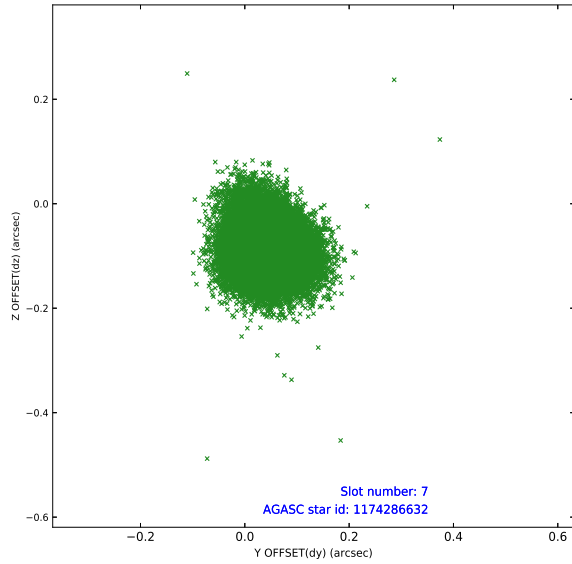
## 2.4.4 Slot 6



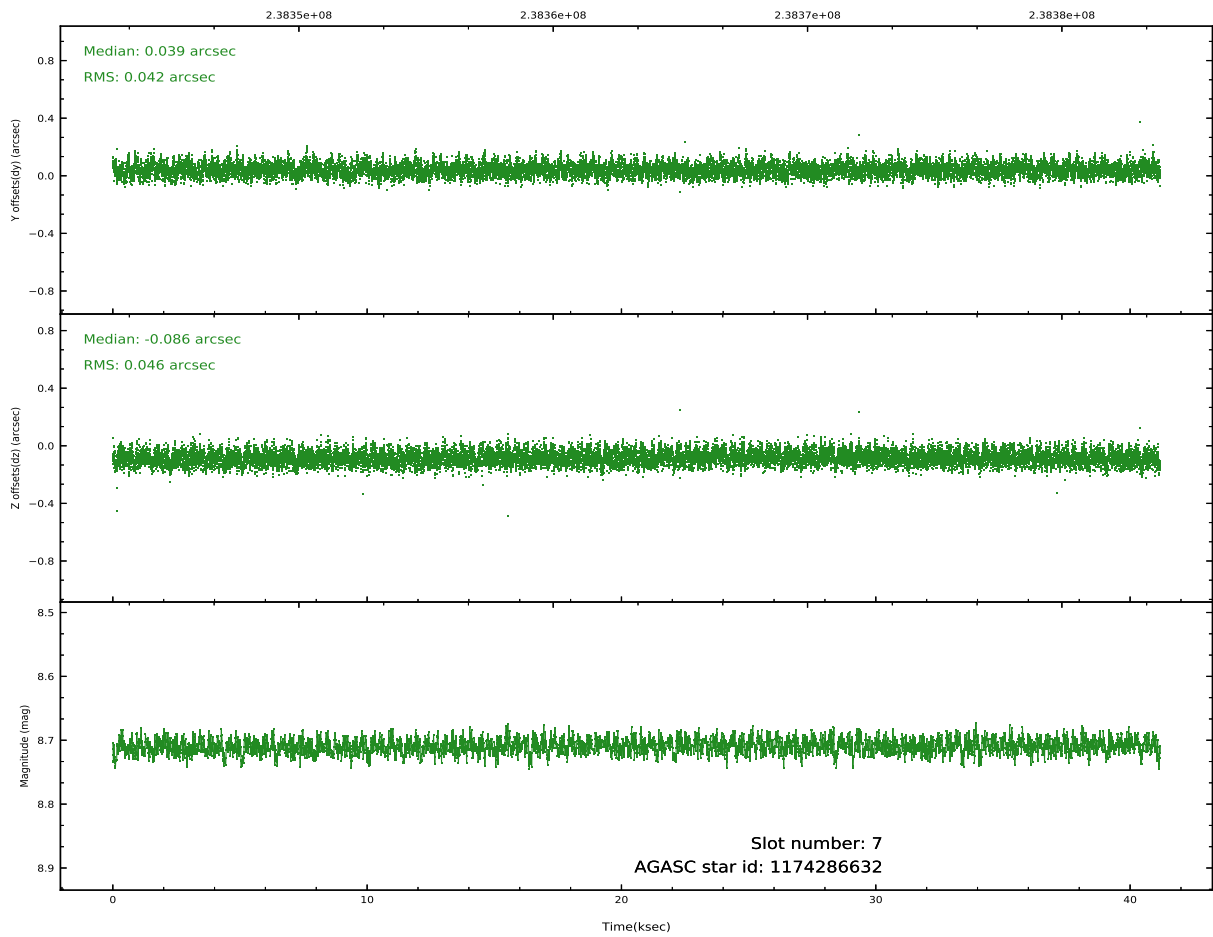
Time (s)



## 2.4.5 Slot 7

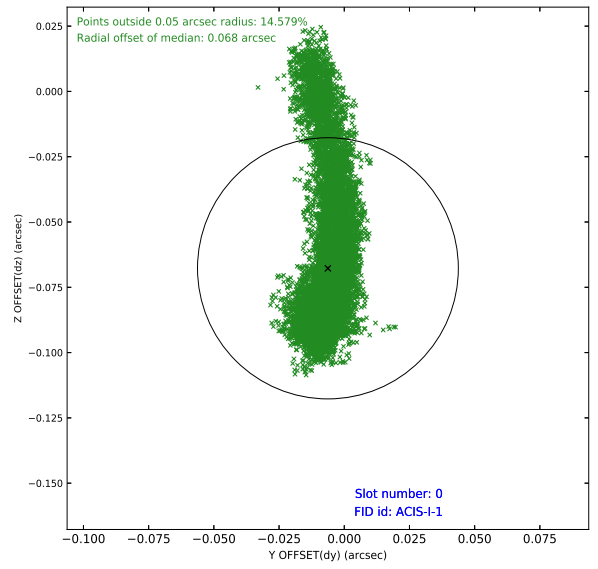
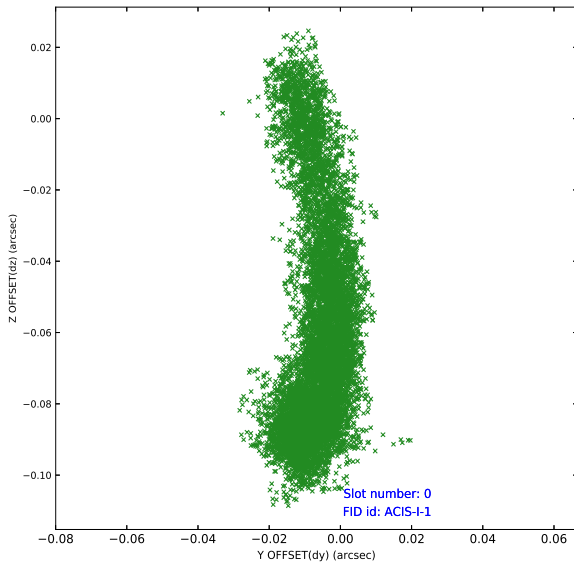


Time (s)

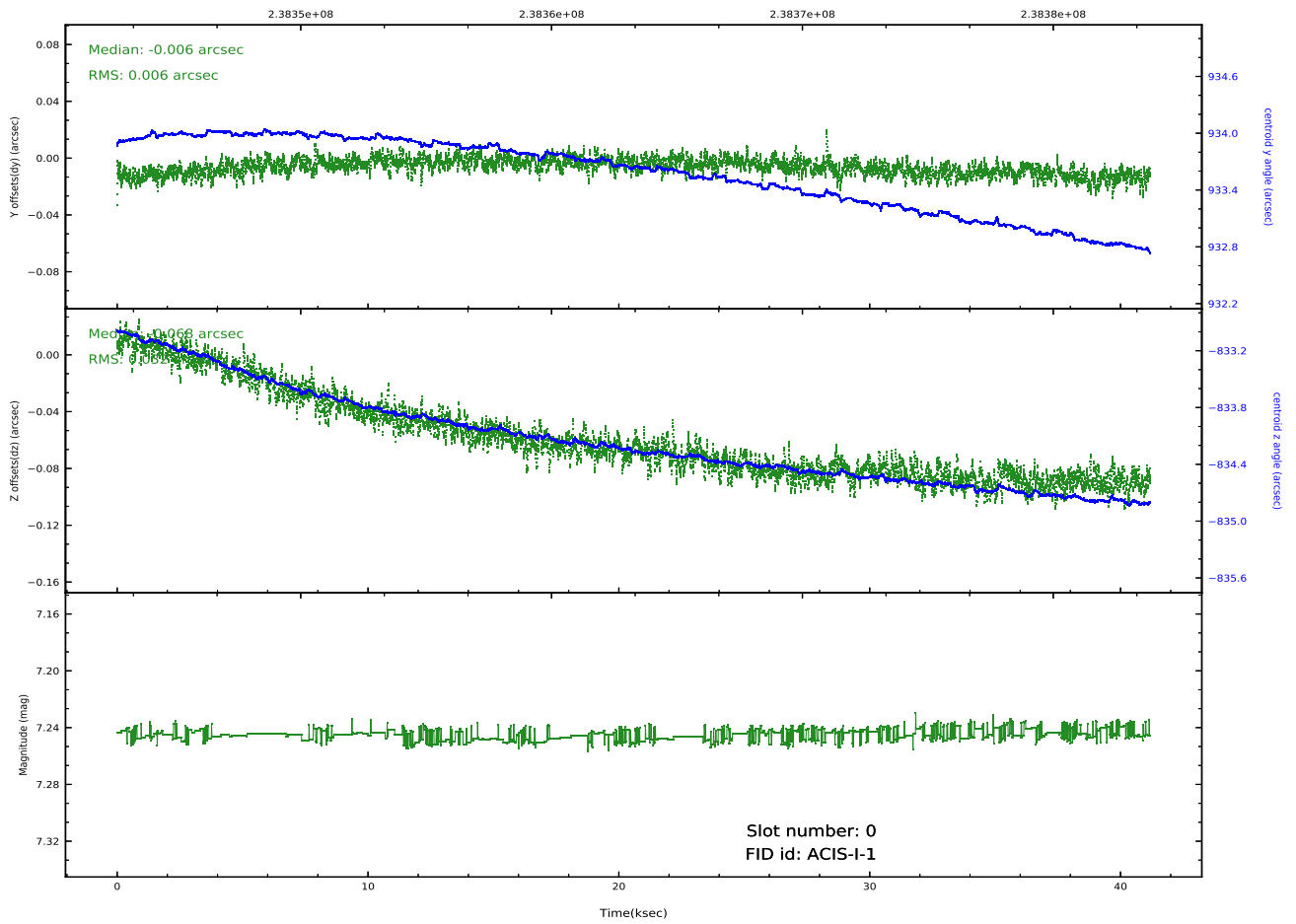


## 2.5 FID Slots

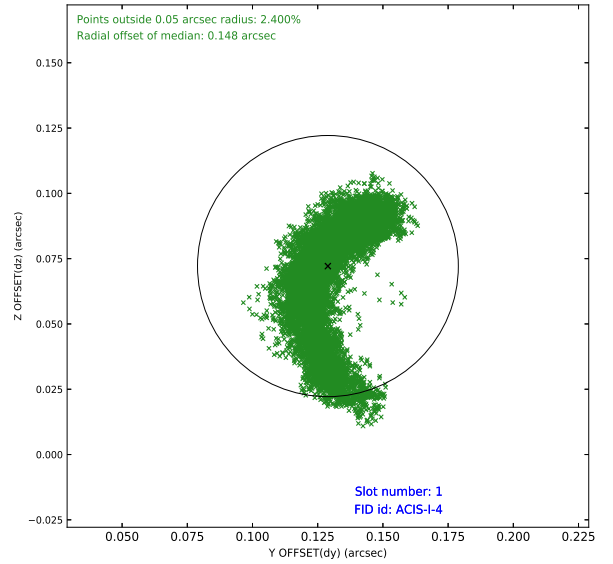
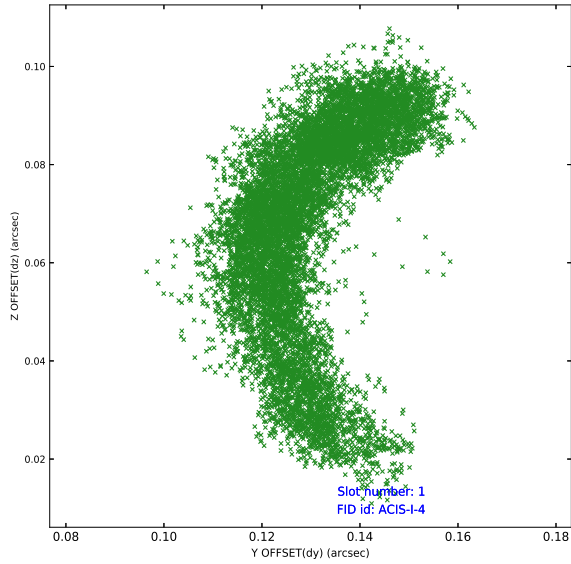
### 2.5.1 Slot 0



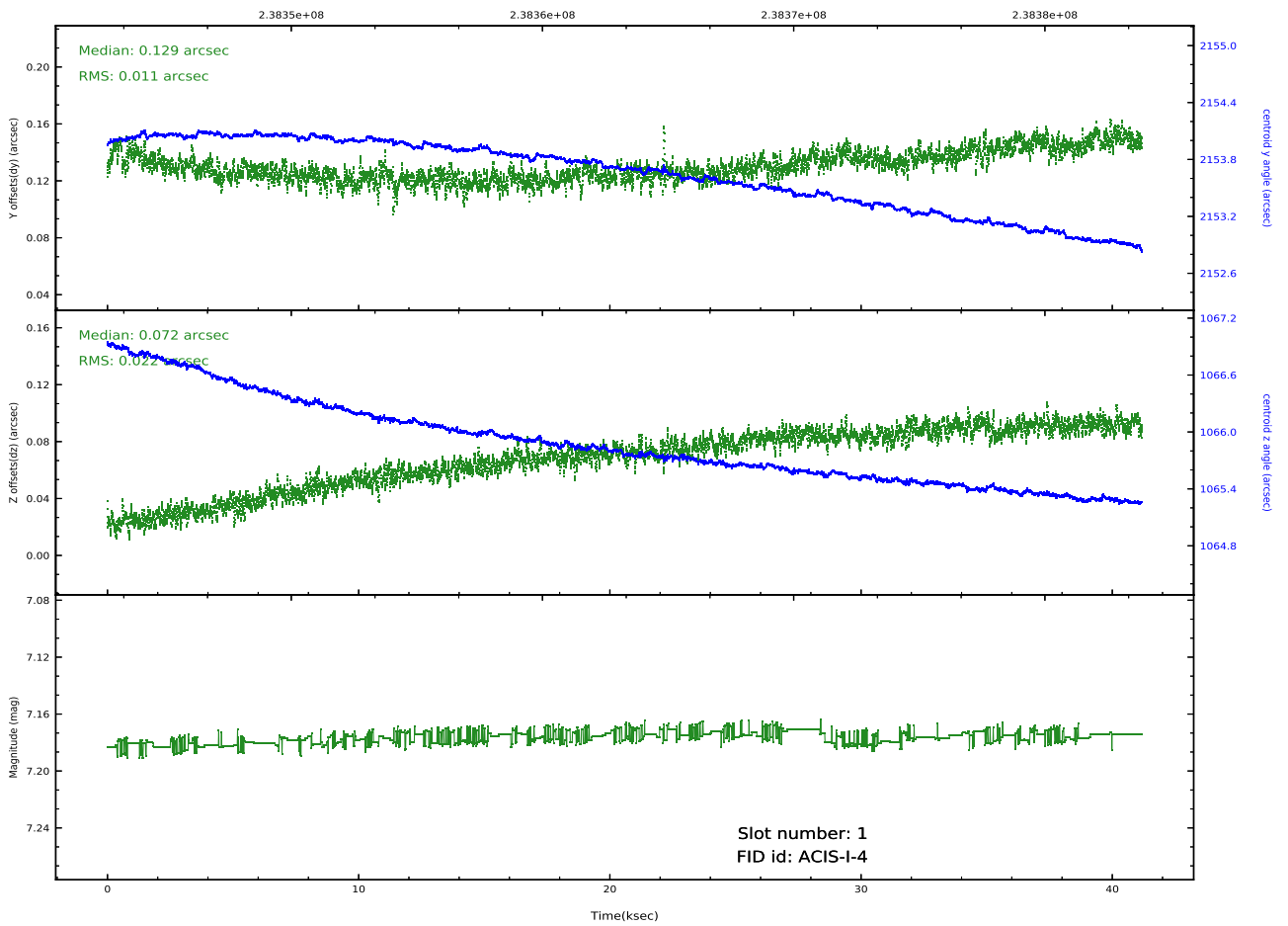
Time (s)



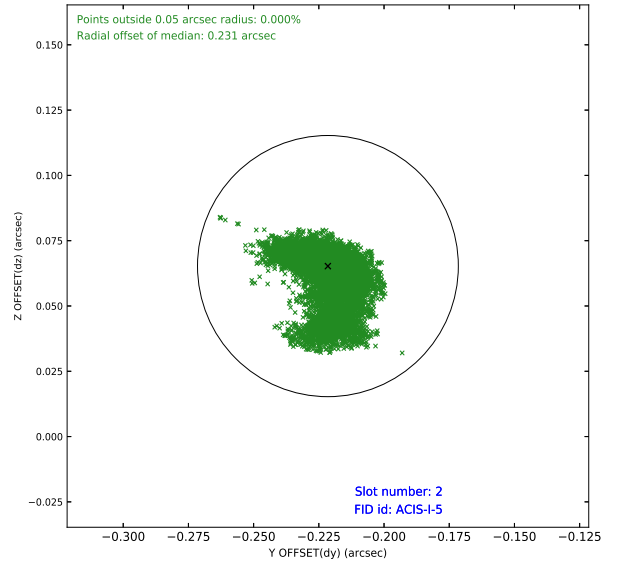
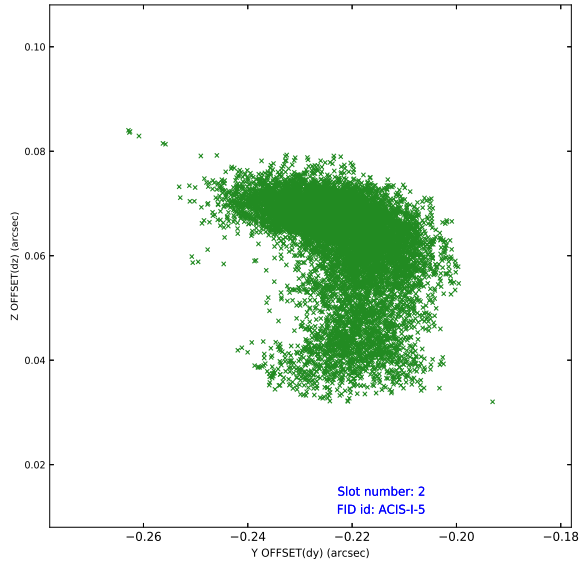
## 2.5.2 Slot 1



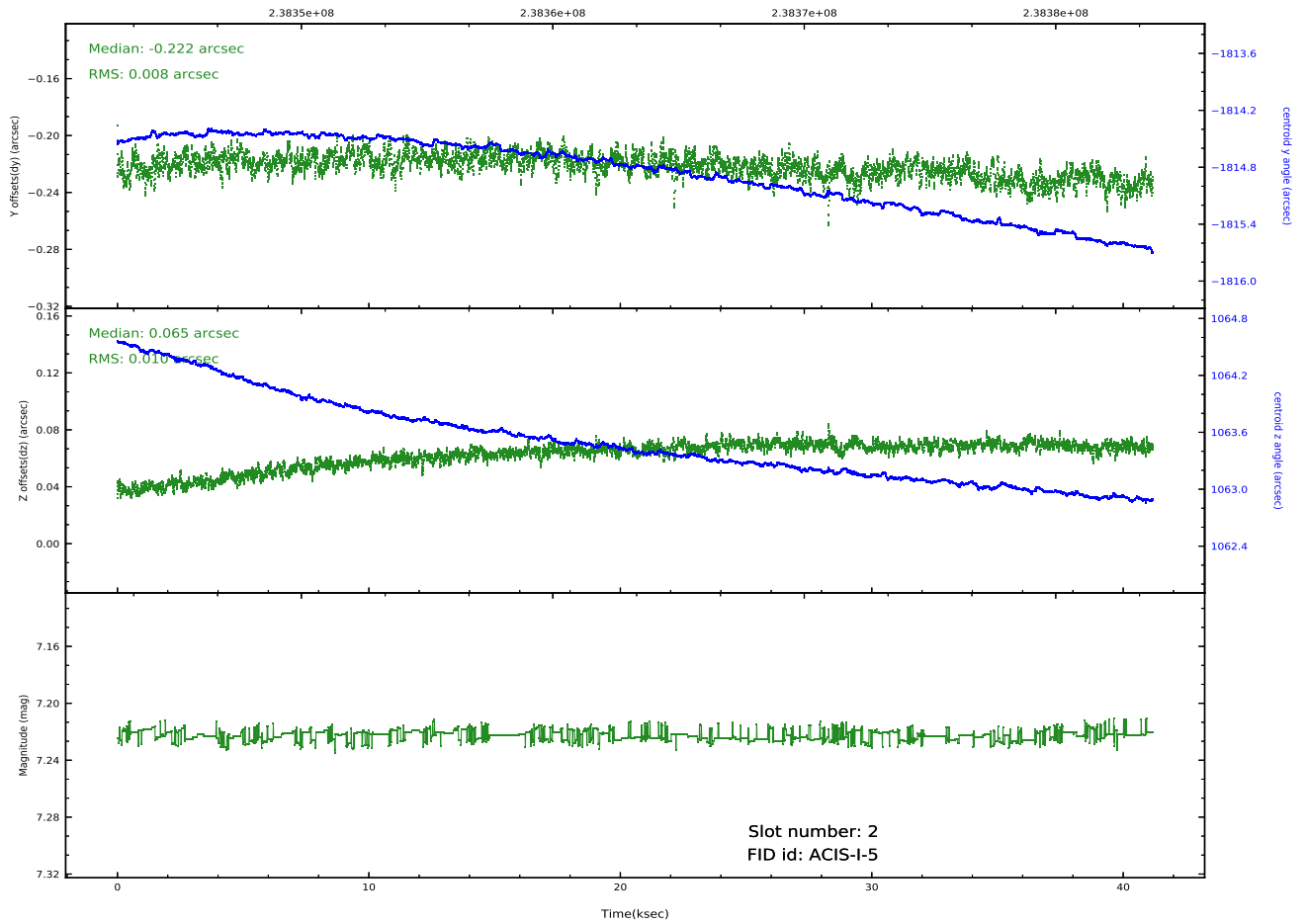
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.02399

## A.2 Comments